

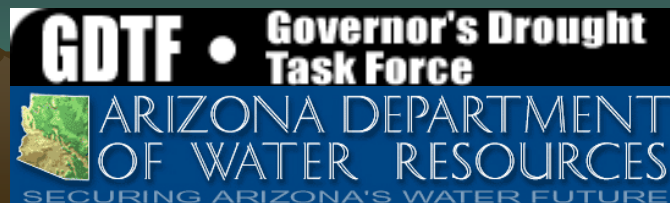
Drought Monitoring Technical Committee Update

to the

Arizona Interagency Coordinating Group

November 5, 2013

Nancy J. Selover
Arizona State Climate Office
Arizona State University
azclimate.asu.edu

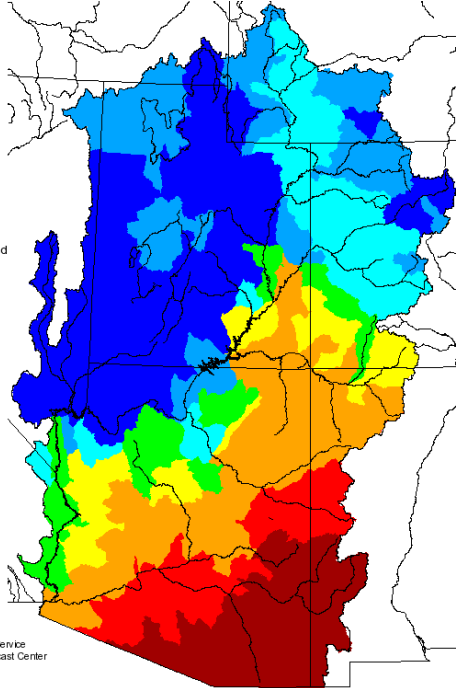
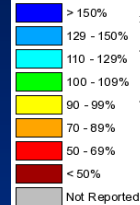


Precipitation Comparison Colorado River Basin

WY 2011 to April

Seasonal Precipitation, October 2010 - April 2011
(Averaged by Hydrologic Unit)

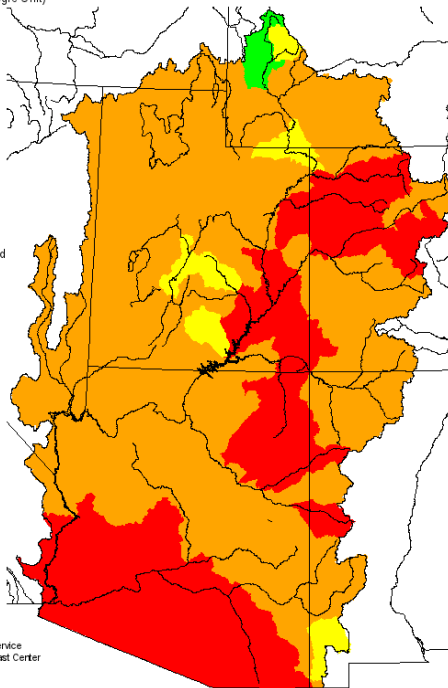
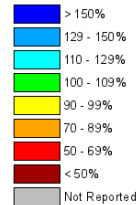
% Average



WY 2012 to April

Seasonal Precipitation, October 2011 - April 2012
(Averaged by Hydrologic Unit)

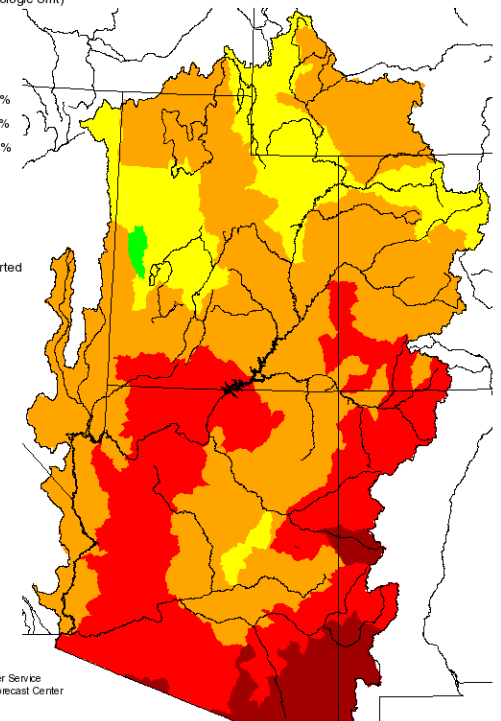
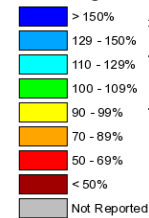
% Average



WY 2013 to April

Seasonal Precipitation, October 2012 - April 2013
(Averaged by Hydrologic Unit)

% Average

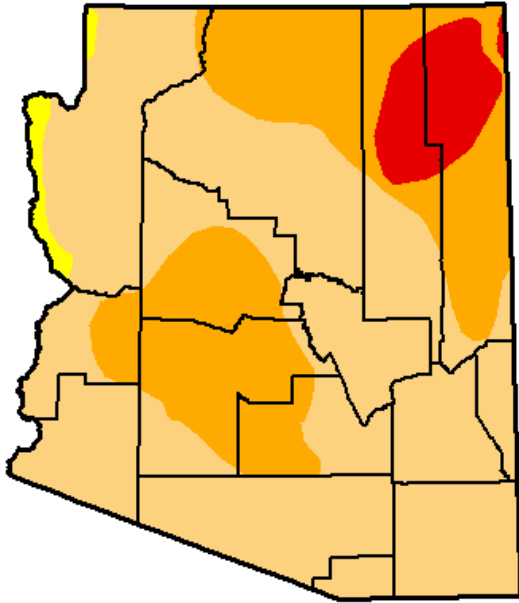


Prepared by
NOAA, National Weather Service
Colorado Basin River Forecast Center
Salt Lake City, Utah
www.cbrfc.noaa.gov

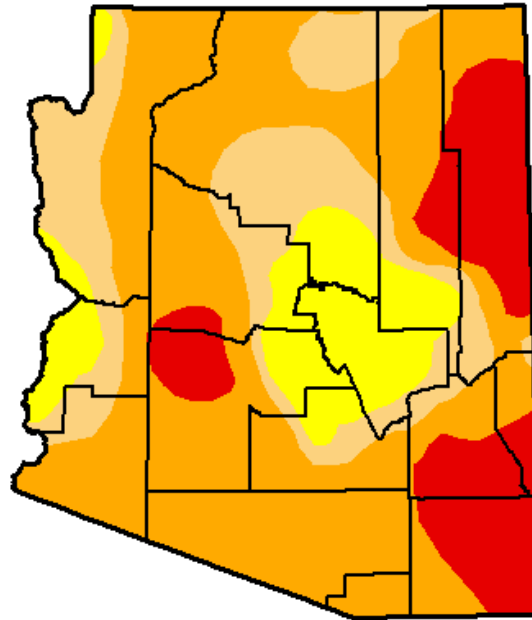
Prepared by
NOAA, National Weather Service
Colorado Basin River Forecast Center
Salt Lake City, Utah
www.cbrfc.noaa.gov

National Drought Monitor Comparison (Short-Term)

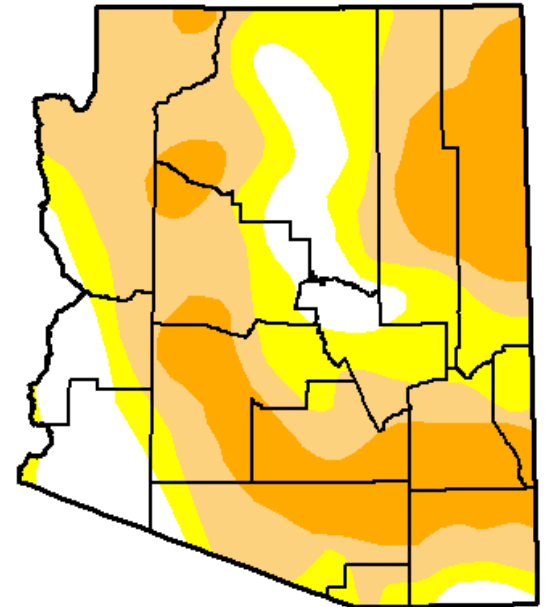
Oct 30, 2012



April 30, 2013



October 29, 2013

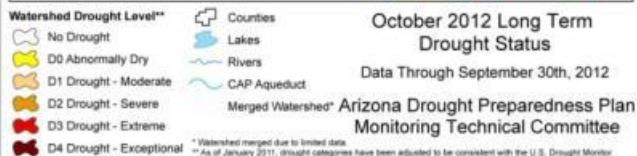
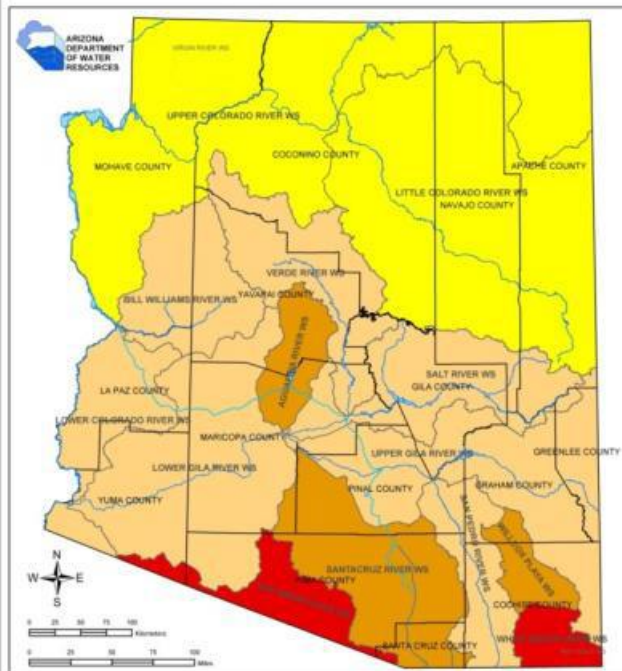
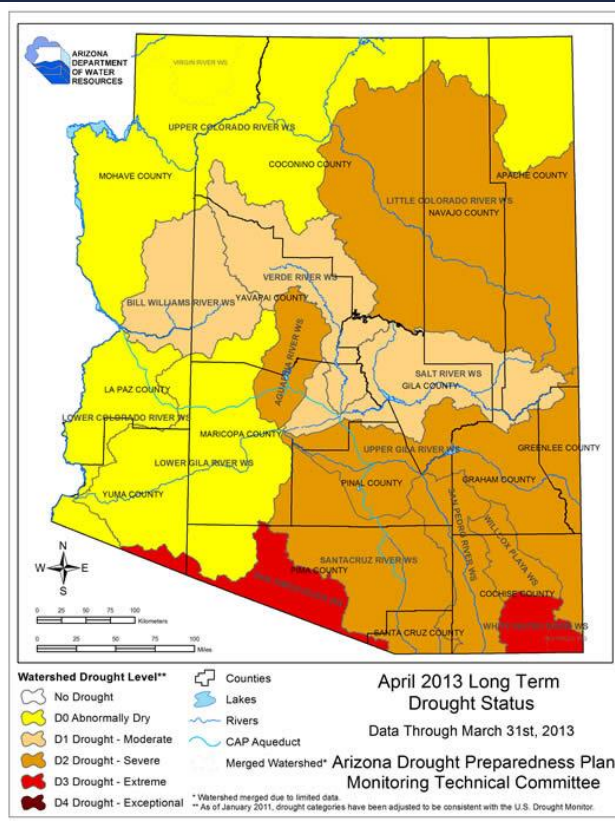
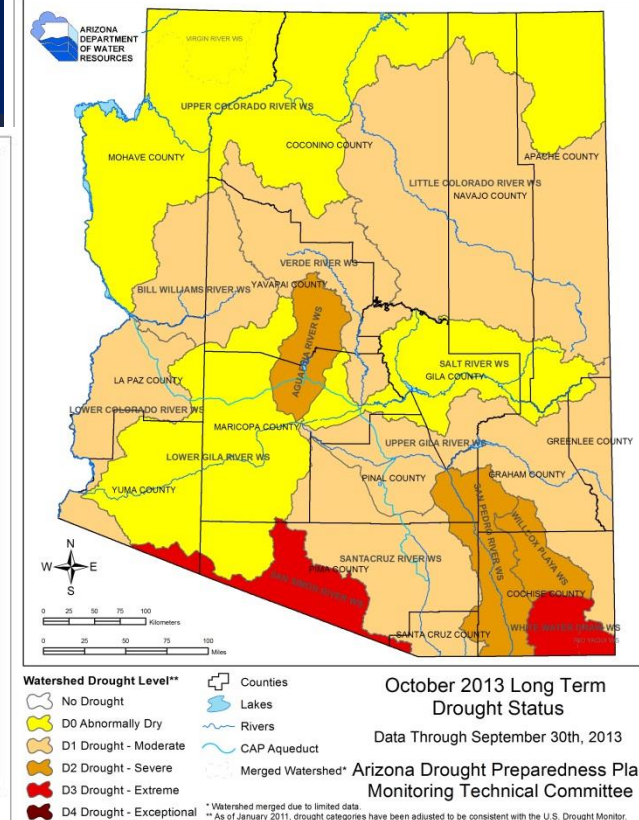


Long Term Drought Status Comparison

October 2013

April 2013

October 2012

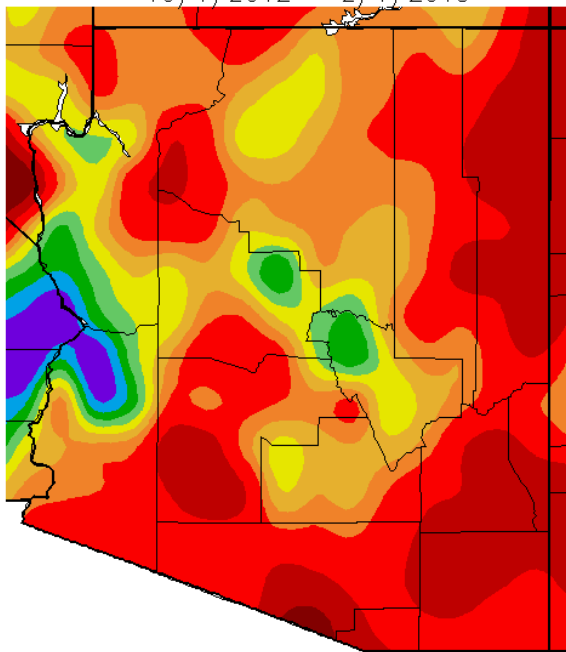


Precipitation

Monsoon 2013

Oct 12-Jan 13

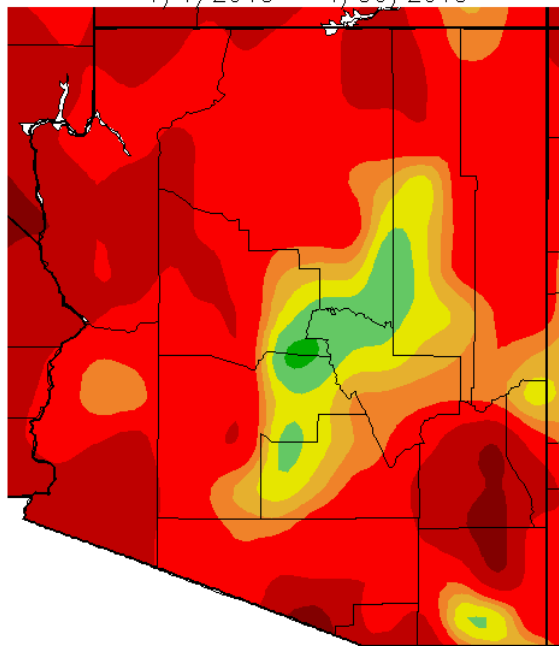
Percent of Average Precipitation (%)
10/1/2012 – 2/1/2013



25 50 70 80 90 100 110 120 130 150 175
Generated 2/02/2013 at WRCC using provisional data.
NOAA Regional Climate Centers

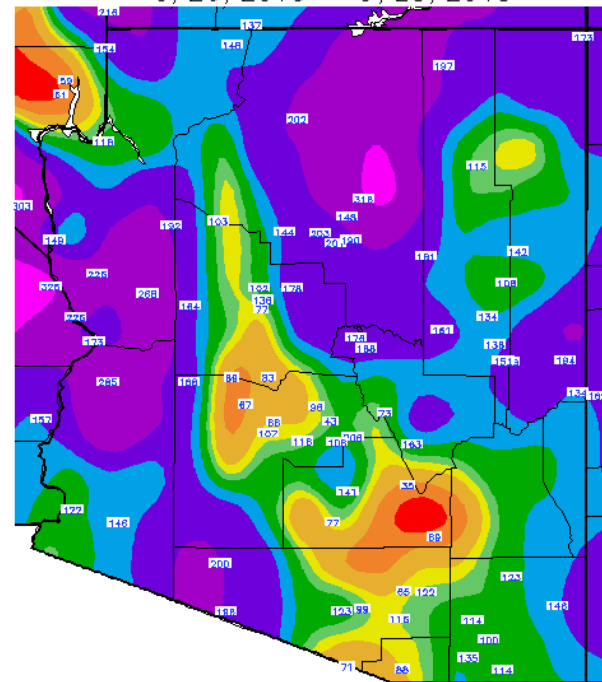
Jan-Apr 2013

Percent of Average Precipitation (%)
1/1/2013 – 4/30/2013



25 50 70 80 90 100 110 120 130 150 175
Generated 5/01/2013 at WRCC using provisional data.
NOAA Regional Climate Centers

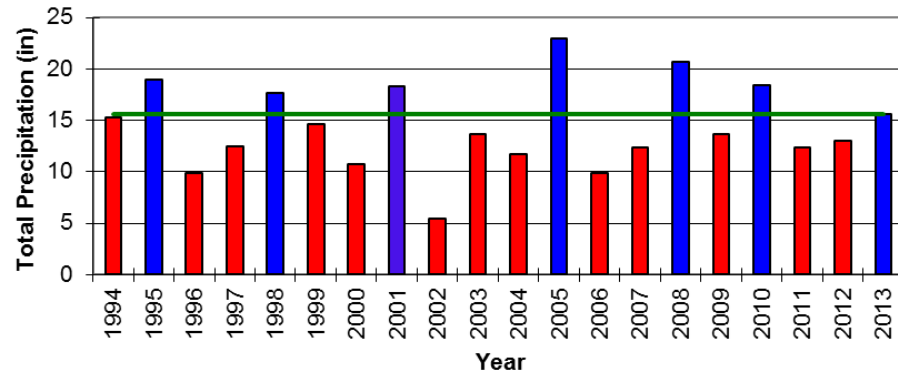
Percent of Average Precipitation (%)
6/26/2013 – 9/23/2013



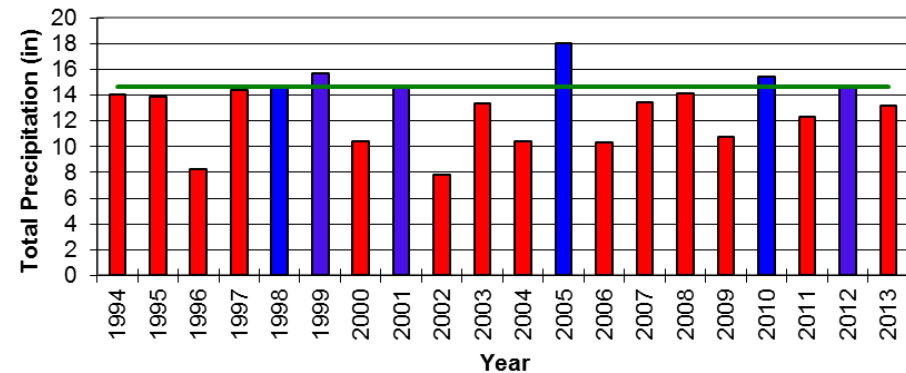
5 25 50 70 90 100 110 130 150 200 300
Generated 9/24/2013 at WRCC using provisional data.
OAA Regional Climate Centers

Precipitation in Selected Watersheds for Past 20 Years

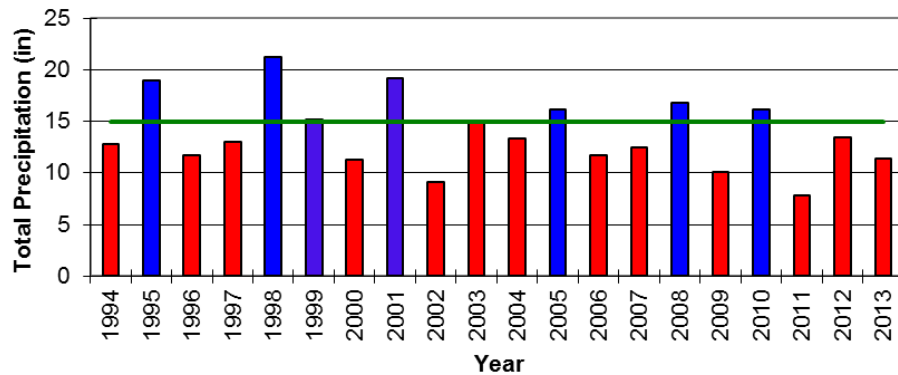
Salt Watershed 12-month Precipitation
(Oct-Sep) Median 15.65"
7 of last 20 years > median



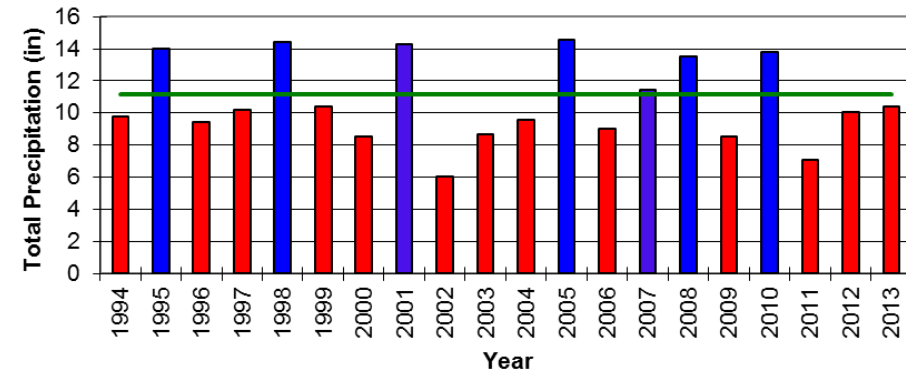
Little Colorado Watershed 12-month Precipitation
(Oct-Sep) Median 14.65"
6 of last 20 years > median



Santa Cruz Watershed 12-month Precipitation
(Oct-Sep) Median 15.00"
7 of last 20 years > median



Upper Gila Watershed 12-month Precipitation
(Oct-Sep) Median 11.19"
7 of last 20 years > median



Thank you !

Questions ?

**Nancy J. Selover
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Arizona State University**

**480-965-0580
selover@asu.edu**

<http://azclimate.asu.edu>

A dark brown silhouette of a mountain range with several peaks, spanning the width of the slide at the bottom.

Winter 2013-14 Outlook

Summer 2014 Preview

Mark O'Malley

Gary Woodall

National Weather Service

Phoenix, AZ

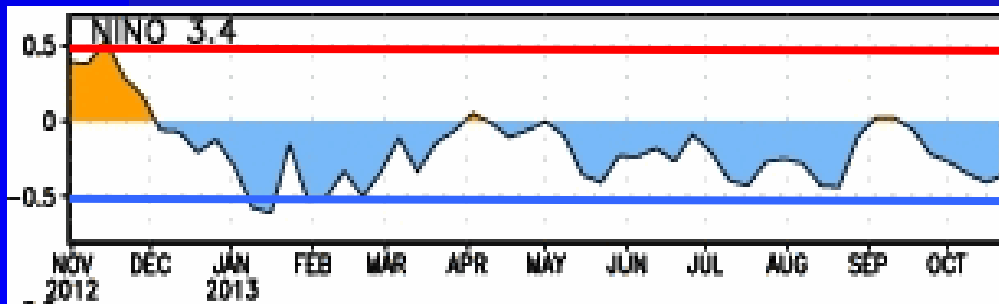
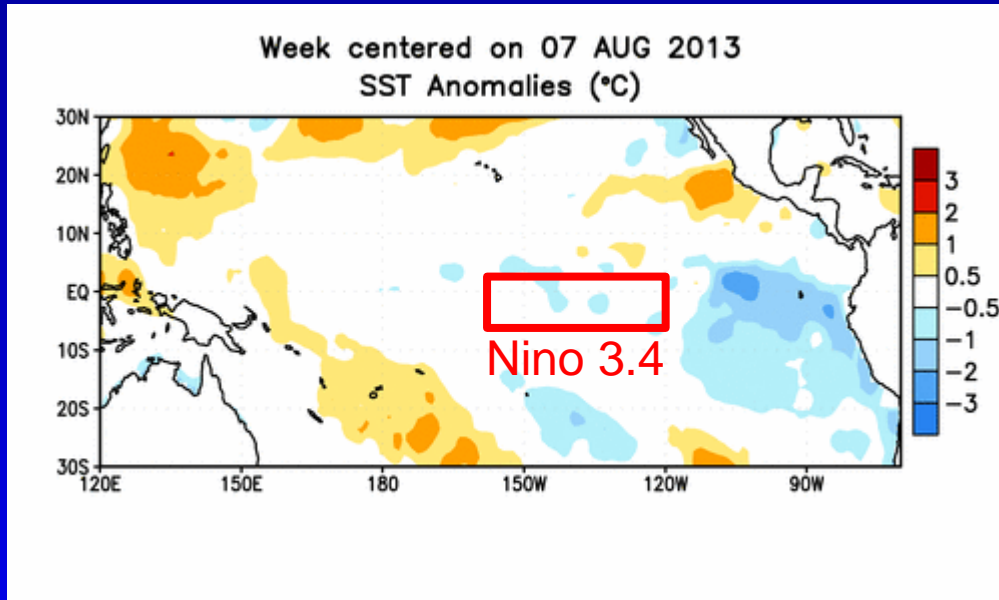
www.weather.gov/phoenix



Arizona Winter Impacts

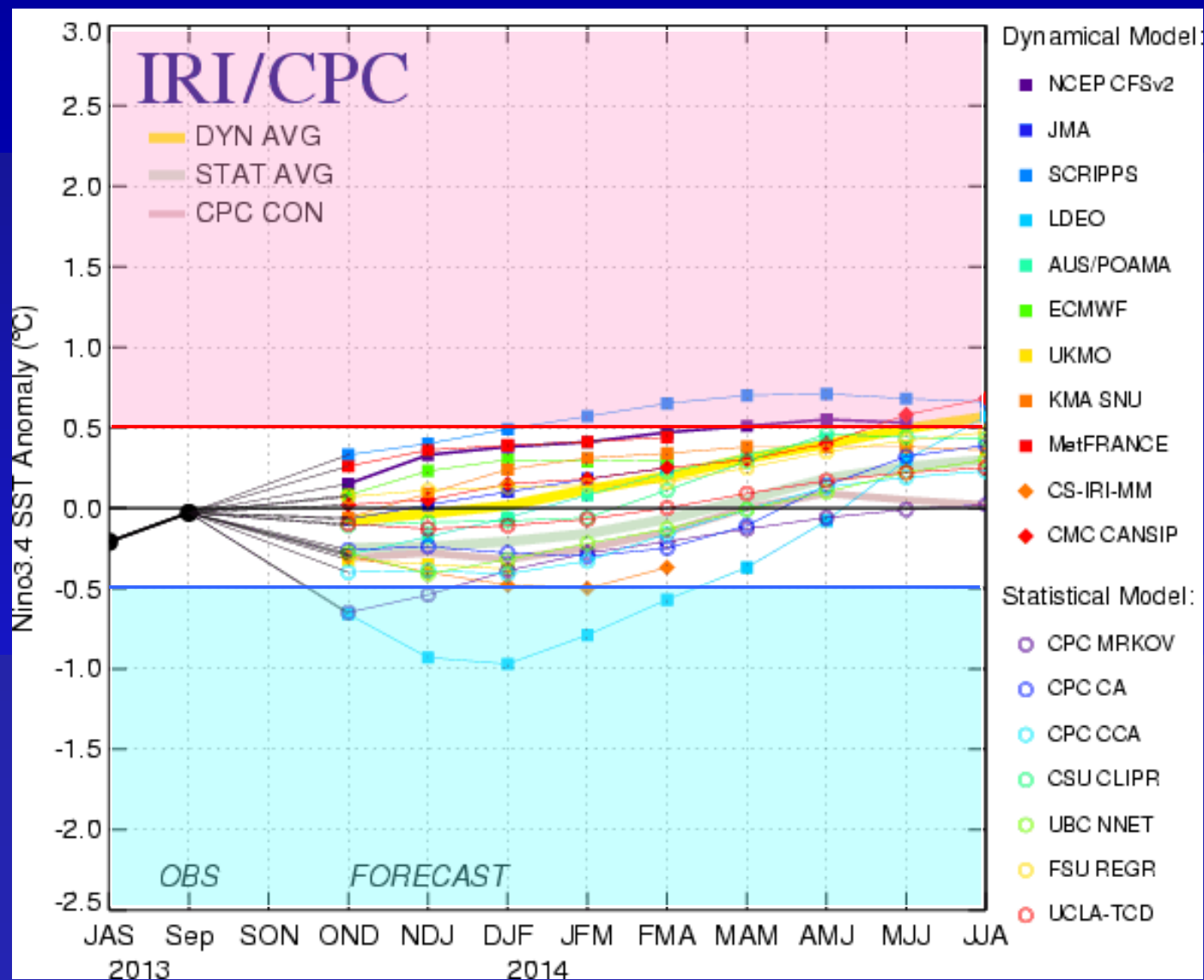
- El Nino winters...
 - Mild/cool temperatures, usually wetter than normal
- La Nina winters...
 - Warm temperatures, drier than normal
- Neutral winters...
 - Near normal temperatures overall, varying amounts of precip (other factors in play)
- Pacific Decadal Oscillation
 - “Warm phase” enhances precip chances
 - “Cold phase” decreases precip chances

Conditions in Tropical Pacific



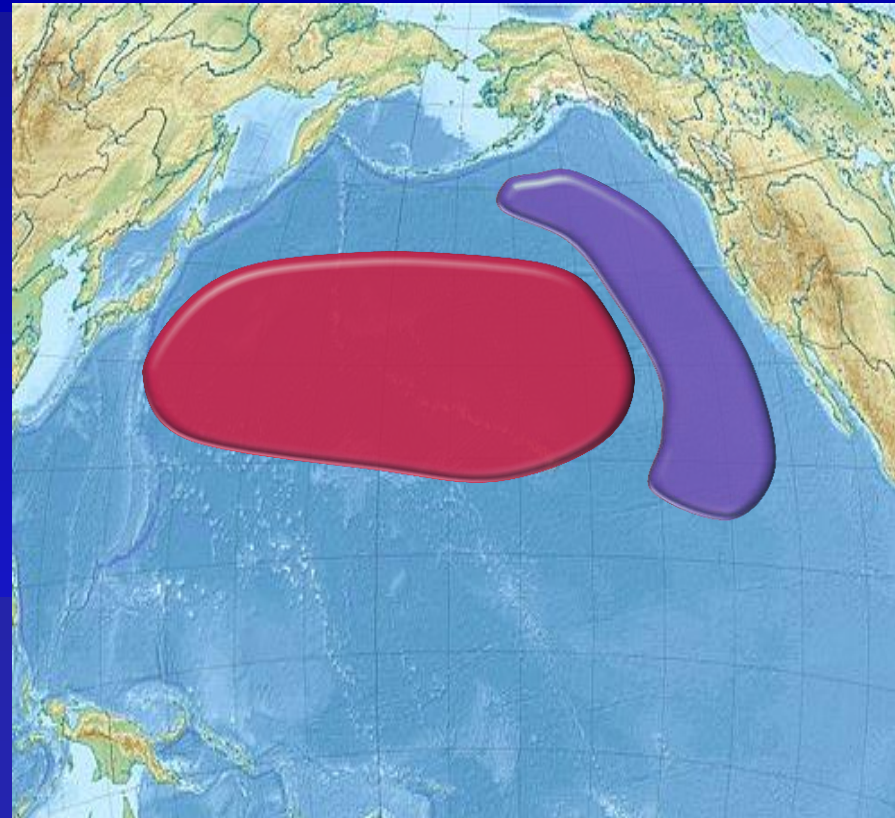
- Small, weak areas of cooler-than-normal water in central tropical Pacific
- Not large or persistent enough to be a “La Nina”
- Over time, this area has been in the “cool” portion of neutral since December 2012

El Nino/La Nina Outlook...

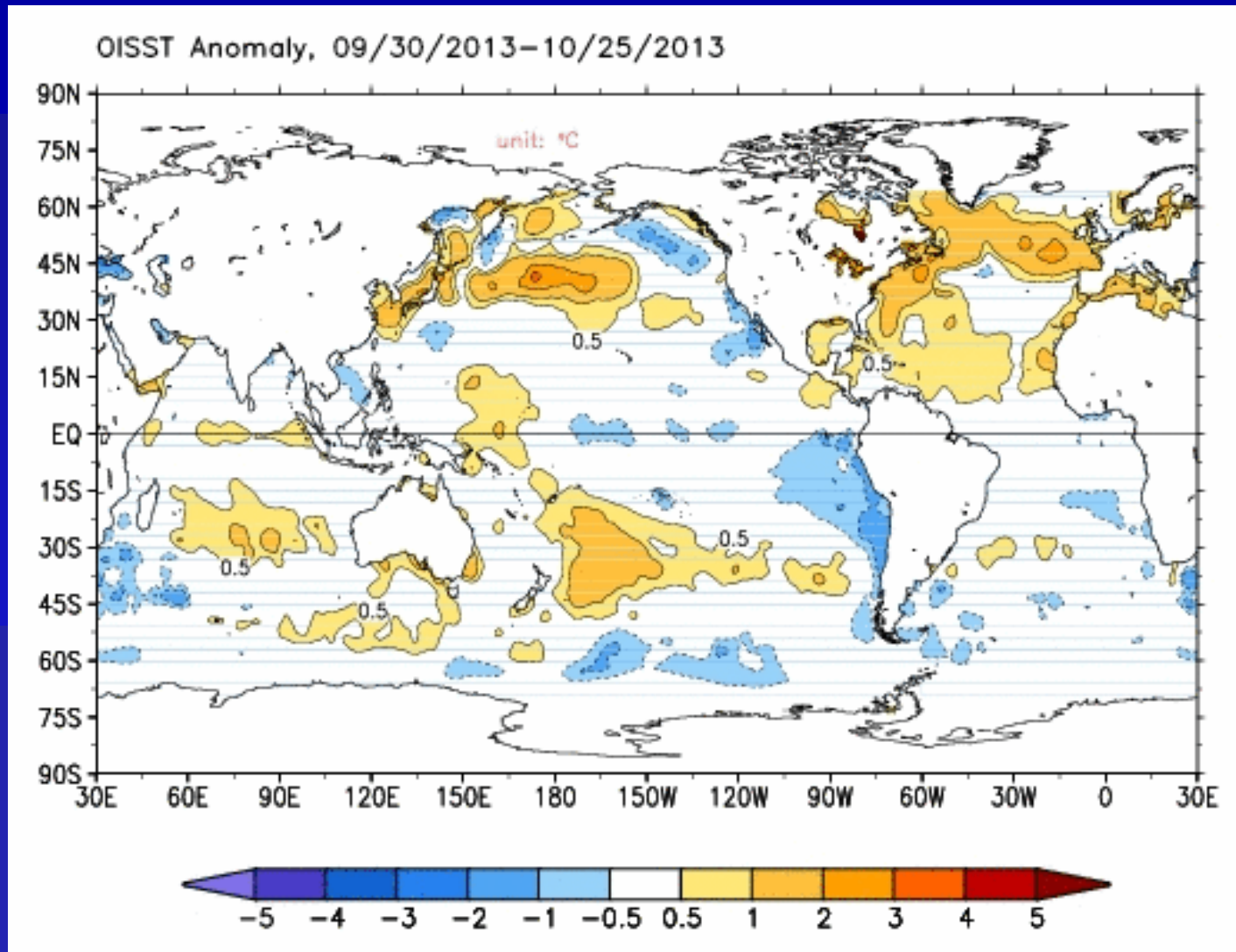


OK, So El Nino and La Nina are no Help...

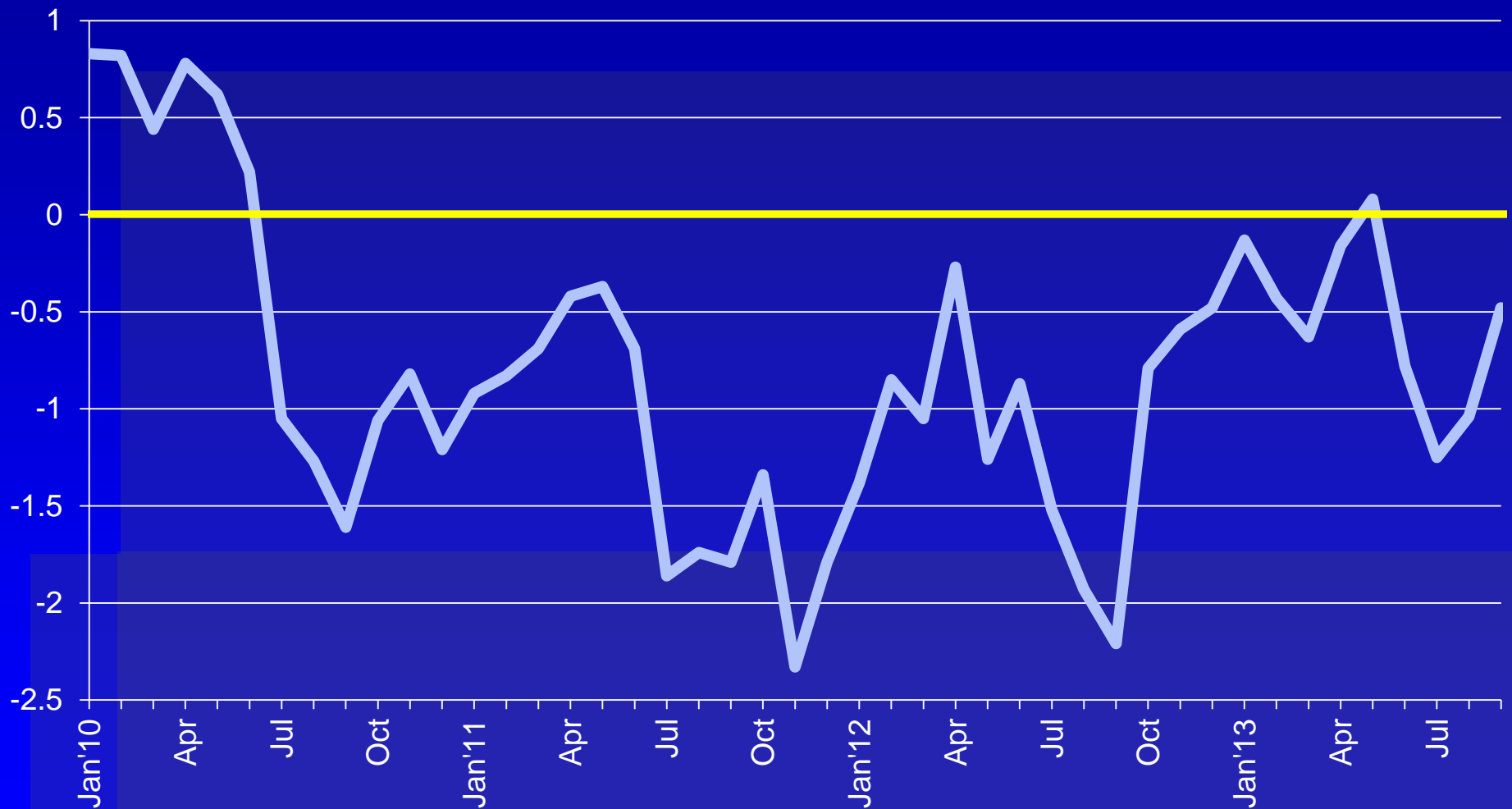
- Pacific Decadal Oscillation: Long-term oscillation in north Pacific sea surface temps
- Can affect temperature/precip patterns *IF* there is no signal from El Nino or La Nina
- Warm (positive) phase: enhanced precip in AZ
- Cool (negative) phase: diminished precip in AZ



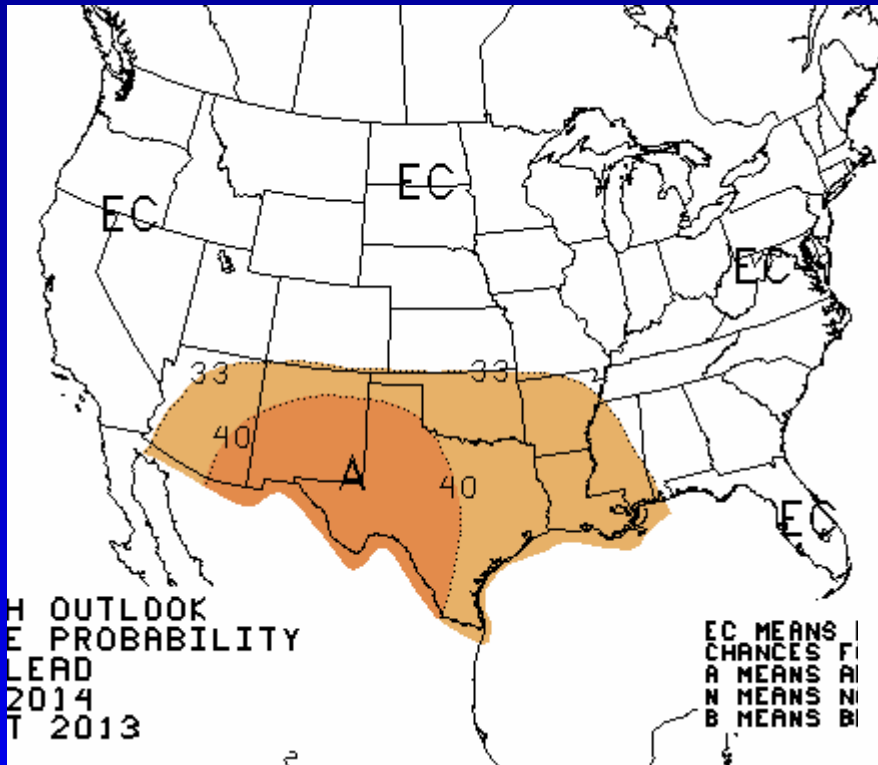
Latest Ocean Sfc. Temperatures



Recent PDO Values



Outlook: Jan/Feb/Mar 2014

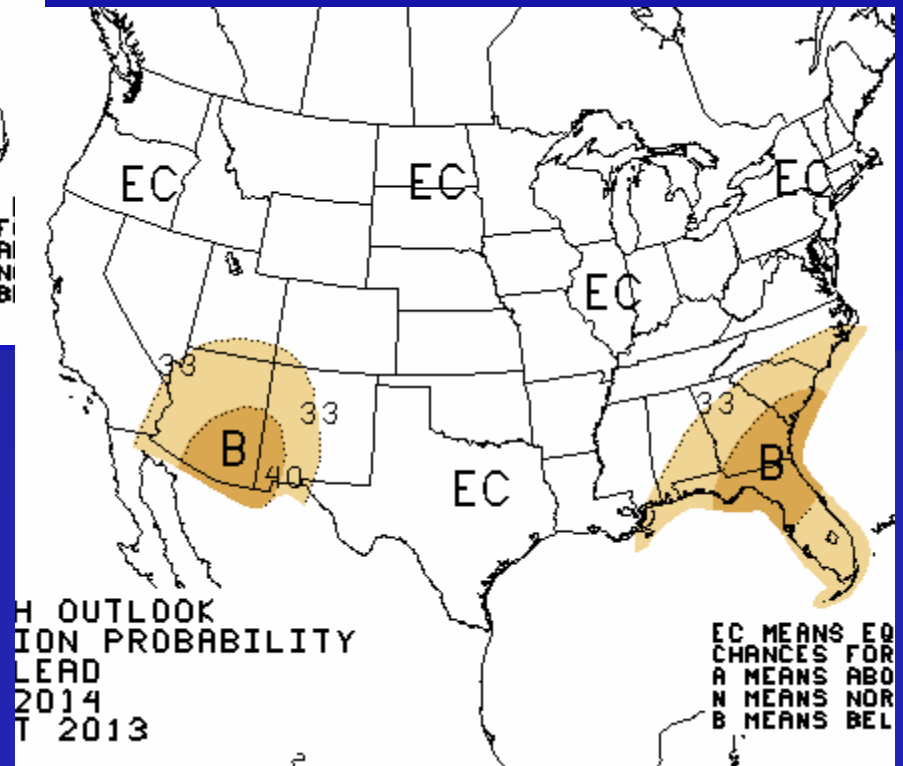


Slight favoring of above-normal temps most of AZ

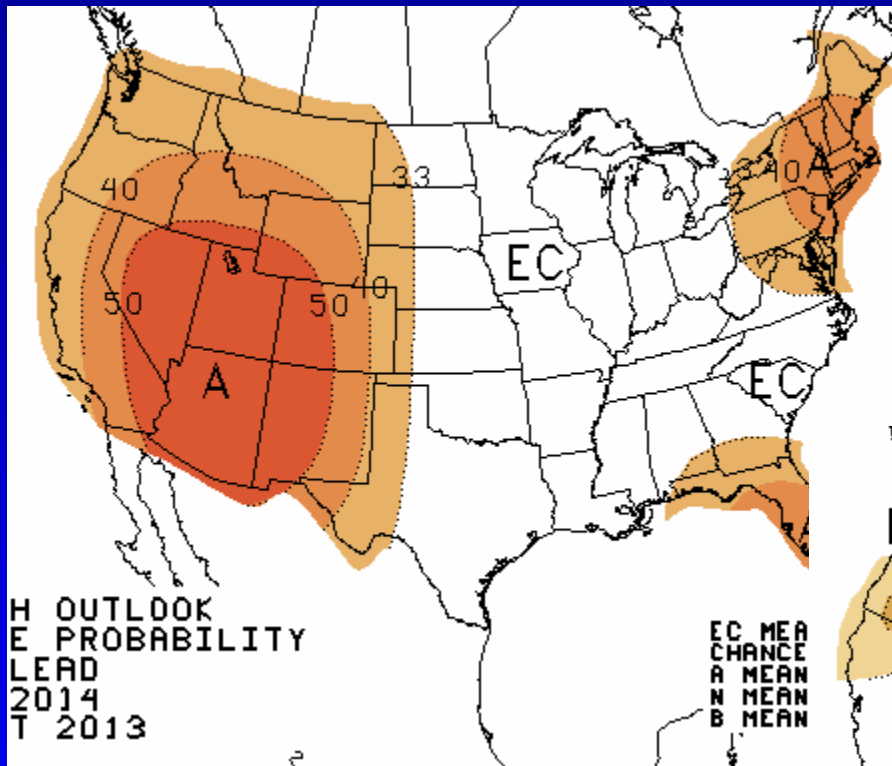
Slight favoring of below-normal precipitation

Three-month averages

Shading indicates chances of above/below normal



Outlook: Jul/Aug/Sep 2014

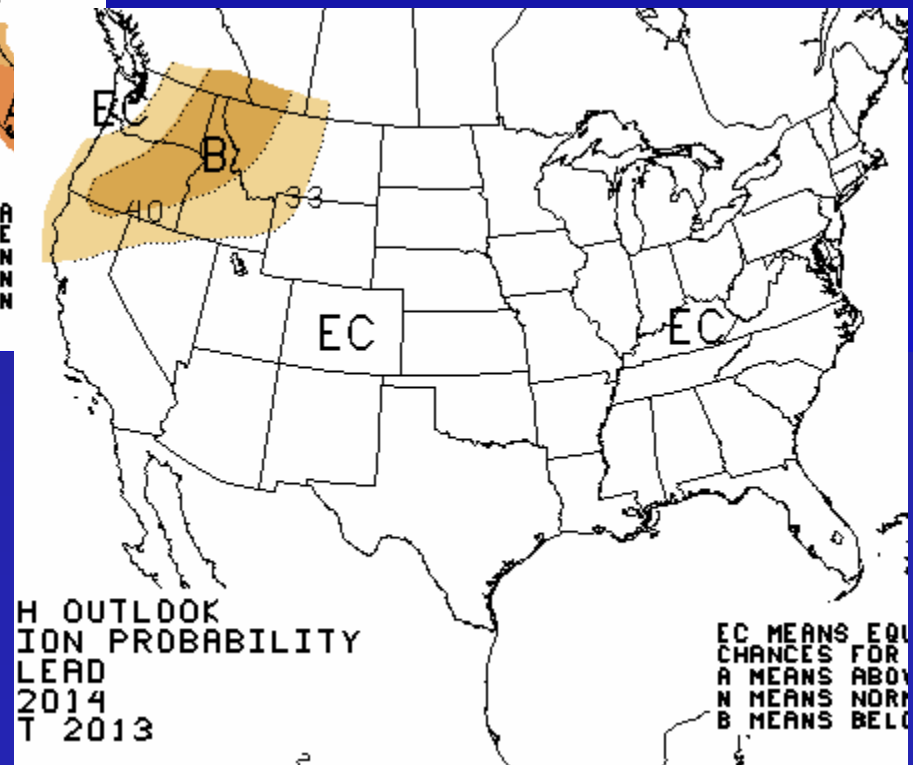


Three-month averages

Shading indicates chances of above/below normal

Temp outlook consistent with previous summers

No substantial odds for precipitation



Summary

- The outlook for winter 2013-14 suggests little El Nino/La Nina influence, negative PDO may affect precip
- Slight odds for above-normal temps, below-normal precip this coming winter
- During summer/warm season, large-scale signals have less effect on Arizona's weather
- The 2014 summer outlook's odds favor above-normal temps, no favorite for precip

Questions? Contact us!

Telephone: 602-275-0073

Home page: www.weather.gov/phoenix

Facebook: www.facebook.com, search for “National Weather Service Phoenix”

Twitter: www.twitter.com/NWSPhoenix

E-mail: gary.woodall@noaa.gov
mark.omalley@noaa.gov

“Remember, we’re not production, we’re just in marketing!”